PATENT ABSTRACTS OF JAPAN

(11) Publication number: 11240919 A

(43) Date of publication of application: 07.09.99

(51) Int. CI

C08F220/16 G03F 7/004 G03F 7/039 H01L 21/027

(21) Application number: 10349241

(22) Date of filing: 04.11.98

(30) Priority: 04.11.97 US 97

(54) NEW POLYMER AND PHOTORESIST COMPOSITION

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain a polymer having an acid-unstable group and useful for a photoresist composition capable of effectively providing an image by a short wave.

SOLUTION: This polymer contains substantially no aromatic group, and has a hung acid-unstable group comprising a (substituted) isobornyl. group, a (substituted) fenchyl group, a (substituted) pinenyl group, a (substituted) 3,2,0- bridge-based group, a (substituted) 2,2,1-bridge-based group, a (substituted) heteroalicyclic group, a cycloalkyl group having a (substituted) 3C or 4C cyclic group, or a (substituted) alkenyl group. The polymer preferably includes a repeating unit of the formula [L is a (substituted) isobornyl, a (substituted) fenchyl or the like; X is nitrile, a (substituted) alicyclic or the like; R is a (substituted) alkyl, a (substituted) alkenyl or the like; Z is a bridging group between the polymer units; (a) to (c) are each mol, % of each polymer unit]. The unit of isobornyl methacrylate is especially preferable.

(71) Applicant:

SHIPLEY CO LLC

(72) inventor:

TAYLOR GARY N

SZMANDA CHARLES R

COPYRIGHT: (C)1999,JPO